

## **Abstract**

**Title:** Hormonal changes in strength training

**Objectives:** Perform a systematic review of literature dealing with hormonal changes in strength training. Based on the informations from aforementioned literature, describe wheather acute hormonal response after a bout of strength training significantly influence the proces of hypertrophy or not. Hormone testosterone and changes of its concentrations is for this thesis the most important.

**Methods:** Method of traditional review was used in this thesis.

**Results:** The presence of acute hormonal changes occurred in strength training was confirmed in numerous studies. Role of this hormonal response is because of variability in results not very clear yet. Chronicle changes of resting hormonal levels in strength training are not observed according to results of studies. For better understanding of hormonal strength in strength training, another studies have to be executed.

**Keywords:** endocrinal system, strength training, hormonal response, testosterone, hypertrophy.